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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,693	06/23/2003	William Lewis Betts	TI-30518A	7220
23494	7590	11/14/2006	EXAMINER	
TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			JOSEPH, JAISON	
			ART UNIT	PAPER NUMBER

2611

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,693

Applicant(s)

BETTS, WILLIAM LEWIS

Examiner

Jaison Joseph

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 23 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Betts et al (US Patent 5,481,567) in view of Maitra et al (US Patent 5,754,589).

Regarding claim 23, Betts et al teach an asymmetric modem for establishing full duplex data communication on with a digital modem over a telephone connection, the analog modem comprising: a transmitter, the transmitter designed to transmit signals over a telephone connection in accordance with a V.34 communications protocol (see column 3, lines 33 – 58); a receiver, the receiver designed to receive signals over the telephone connection and demodulate the received signals into digital data (see figure 4 component 202 and column 3, lines 34 - ); wherein the transmitter and receiver are designed to operate concurrently; wherein the receiver is designed to operate in accordance with a pulse modulation protocol (see column 2, lines 58 – 66), the receiver designed to decode the received signals into first digital data words and translate the

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first digital data words into second digital data words, the first digital data words having corresponding pulse levels with different signal levels on the telephone connection as compared to the pulse levels of the second digital data words (see figure 4 and column 3, lines 33 – 66); Betts et al is silent on the receiver is capable of communicating at a higher speed than the V.34 communications protocol. However in analogous art, Maitra teach the receiver is capable of communicating at a higher speed than the V.34 communications protocol (see column 20 lines 21 – 65. Maitra teaches that the receiver is communicating the with digital telephone codec at the rate of 64000bps). Therefore it would be obvious to an ordinary skilled in the art at the time the invention was made to have the Modem communicate higher speeds than V.34 protocol. The motivation or suggestion to do is that to transmit voice over data network.

Regarding claim 24, which inherits the limitations of claim 23, Betts et al further teach the receiver comprises a map table mechanism, the map table mechanism designed to receive the first digital data words and to identify the second digital data words (see figure 4 component 210, 215, 260 and 220).

Regarding claim 25, which inherits the limitations of claim 23, Betts et al further teach wherein said first digital data words are in an expanded format relative to said second digital data words.

Regarding claim 26, which inherits the limitations of claim 23, Betts et al further teach wherein the receiver implements a fractional bit rate protocol (it is inherent that the v.34 supports data rates ranging from 2400bps to 33600bps).

Regarding claim 27, which inherits the limitations of claim 23, Betts et al further teach wherein the receiver comprises a lookup table to identify the second digital data words (see figure 4, component 260).

Regarding claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 23 is applicable hereto.

Regarding claim 30, which inherits the limitations of claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 24 is applicable hereto.

Regarding claim 31, which inherits the limitations of claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 25 is applicable hereto.

Regarding claim 32, which inherits the limitations of claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 26 is applicable hereto.

Regarding claim 33, which inherits the limitations of claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 27 is applicable hereto.

Claims 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Betts et al (US Patent 5,481,567) in view of Maitra et al (US Patent 5,754,589) and further in view of Betts et al ((US Patent 5,396,519) Betts2 hereinafter).

Regarding claim 28, which inherits the limitations of claim 23, Betts et al further teach wherein the receiver comprises a map table mechanism and a parallel-to-serial

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converter; the map table mechanism designed to receive the first digital data words and to identify the second digital data words, (see figure 4). Betts et al does not expressly disclose a parallel-to-serial converter designed to convert the second digital data words to a serial format. However in analogous art Betts2 teach a parallel-to-serial converter designed to convert the second digital data words to a serial format (see figure 9, component 128). Therefore it would be obvious to an ordinary skilled in the art at the time the invention was made to incorporate the Betts2's parallel to serial converter in Betts in view of Maitra. The motivation or suggestion to do so is to recover originally provided data stream.

Regarding claim 34, which inherits the limitations of claim 29, the claimed apparatus including the features corresponds to subject matter mentioned above in the rejection of claim 28 is applicable hereto.

### ***Conclusion***

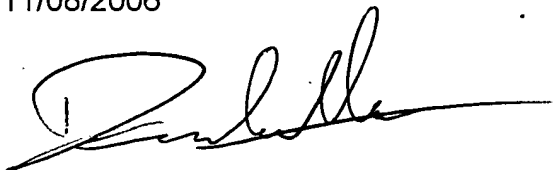
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaison Joseph whose telephone number is (571) 272-6041. The examiner can normally be reached on M-F 9:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaison Joseph  
11/08/2006

A handwritten signature in black ink, appearing to read 'Jaison Joseph', with a long horizontal flourish extending to the right.

**DACHA**  
**PRIMARY EXAMINER**